

REMARKS

The Applicants have now had an opportunity to carefully consider the remarks set forth in the Office Action mailed July 13, 2005. All of the rejections are respectfully traversed. Reexamination and reconsideration of the application in light of the following remarks is respectfully requested.

The Office Action

In the Office Action mailed July 13, 2005, the persuasiveness of arguments regarding the Enomoto reference was acknowledged. However, those remarks were misidentified as being filed 9/1/2004. It is respectfully submitted that Enomoto was first cited in the Office Action mailed December 16, 2004, and remarks thereto were filed by the Applicant on March 14, 2005.

Additionally:

claims 1-3 were rejected under 35 U.S.C. §102(e) and/or §102(a) as being anticipated by U.S. Patent No. 6,222,648 B1 to Wolf, et al. ("Wolf"); and

claims 4 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wolf and further in view of the Balasubramanian-1996 ("Balasubramanian") and U.S. Patent No. 5,612,902 to Stokes ("Stokes").

The Present Application

By way of brief review, the present application is directed toward methods and apparatuses for detecting and filtering transient errors from a signal produced by a color measurement device. The method includes the substitution of a reasonable signal for color measurement signals that are outside reasonable levels (page 1, lines 12-15).

The Newly Cited Reference

In stark contrast, the newly cited primary reference of the Office Action to Wolf discloses a method and apparatus for periodically upgrading the color calibration of an electrophotographic printer (Abstract, lines 1-2). As such, it is respectfully submitted that Wolf is unrelated to detecting and filtering of transient errors or glitches from a signal produced by a color measurement device.

In this regard, the Office Action asserts that Wolf discloses comparing a measured color signal to an expected color signal to produce an error value and

selectively replacing the measured color signal based on the color error. However, it is respectfully submitted that Wolf makes no such disclosure or suggestion.

Wolf makes reference to a densitometer/spectrophotometer 70. However, Wolf does not disclose or suggest replacing a signal from the densitometer spectrophotometer 70. In this regard, the attention of the Examiner is directed to, for example, FIG. 4 of the present application wherein an alternate signal 452 is optionally or selectively provided instead of a signal 456 from a color sensor 424 when the signal 456 is determined to be unreasonable. For instance, the alternate signal 452 is generated from element 444 by model 428. Element 436 selectively decides to use (at 468) the alternate signal 452 or the color sensor signal 456 based on a comparison or error signal 460. A more detailed description of the operation of the system of FIG. 4 is provided on pages 11-13 of the present application. It is respectfully submitted that Wolf does not disclose an alternate signal to selectively replace the signal from the densitometer/spectrophotometer 70 (see FIG. 1) of Wolf.

Wolf discusses a high-density compensator (i.e., MAP1)(column 6, line 50) and a low-density compensator (i.e., MAP2)(column 6, lines 53-54). The Office Action appears to characterize MAP1 as a model of a color producing process and appears to characterize MAP2 as a comparator. However, it is respectfully submitted that MAP1 is not fairly characterized as a model of a color producing process and MAP2 is not fairly characterized as a comparator. MAP2 and MAP1 provide an updated and a fixed portion of a color calibration or compensation, respectively (column 6, lines 44-63). MAP2 does not compare a document signal with a measured signal. Instead, MAP2 provides a first level of compensation for colors requested by document data. MAP2 may be periodically or occasionally updated based on information from densitometer/spectrophotometer 70. However, MAP2 does not compare data from a document to data from the densitometer/spectrophotometer 70.

Even if the MAP2 is construed as comparing a document signal with a measured signal, such a comparison does not disclose or suggest comparing a measured color signal to an expected color signal to produce an error value. Furthermore, the output of the MAP2 is not an error signal. Instead, the output of MAP2 is a partially compensated color request or document signal.

The Claims are Not Anticipated

Claims 1-3 were rejected under 35 U.S.C. §102(e) and/or §102(a) as being anticipated by Wolf.

In explaining these rejections, the Office Action makes a number of assertions with regard to what Wolf discloses. One of those assertions is that Wolf discloses predicting an expected color signal based on a model and a monitored input. In this regard, the Office Action characterizes the outputs of MAP1 and MAP2 as the predicted, expected color signal. It is respectfully submitted that this assertion is unclear. The output of MAP2 is clearly the input to MAP1 (see FIG. 1). It is respectfully submitted that the outputs of MAP1 and MAP2 are not expected color signals. Even if the output of one of MAP1 and MAP2 is considered to be an expected color signal, it is respectfully submitted that certainly both outputs cannot be expected color signals. Clarification is respectfully requested.

The Office Action goes on to assert that Wolf discloses comparing the measured color signal to the expected color signal to produce a color error value. In this regard, the Office Action appears to characterize the output of MAP2 as the error signal. It is respectfully submitted that the output of MAP2 cannot be both an expected color signal and a color error value based on the comparison of a measured color signal to the expected color signal. Clarification is respectfully requested.

Furthermore, the Office Action characterizes the output of MAP2 as a comparison of a document signal with a measured signal. However, **claim 1** recites comparing the measured signal to the expected color signal. Even if the output of, for example, MAP1 is taken to be an expected color signal, MAP2 cannot provide a comparison of that signal with the measured signal since the output of MAP1 is not received as input to MAP2. Clarification is respectfully requested.

For at least the foregoing reasons, **claim 1**, as well as **claims 2-5**, which depend therefrom, is not anticipated and is not obvious in light of Wolf.

Additionally, **claim 2** recites replacing the measured color signal with a predicted color signal based on the expected color signal. In this regard, the attention of the Examiner is directed to FIG. 1 of Wolf and column 3, lines 29-31. Wolf discloses "periodically measuring subsets of said color patches and using this information to update said correction value." Wolf does not disclose or suggest selectively replacing the measured color signal (i.e., output of

densitometer/spectrophotometer 70). Furthermore, Wolf does not disclose or suggest replacing a measured color signal with a predicted color signal. Still further, it is respectfully submitted that Wolf does not disclose or suggest replacing a measured color signal with a predicted color signal based on an expected color signal.

For at least these additional reasons, **claim 2** is not anticipated and is not obvious in light of Wolf.

Claim 3 recites storing a measured color value representative of the measured color signal in association with the monitored input. In explaining the rejection of **claim 3**, the Office Action asserts that Wolf discloses storing modifications. However, disclosure of storing modifications does not disclose or suggest storing a measured color value. Furthermore, disclosure of storing modifications does not disclose or suggest storing a measured color value representative of a measured color signal. Still further, disclosure of storing modifications does not disclose or suggest storing a measured color value representative of a measured color signal in association with a monitored input.

For at least the foregoing additional reasons, **claim 3** is not anticipated and is not obvious in light of Wolf.

The Claims are Not Obvious

Claims 4 and **5** were rejected under 35 U.S.C. §103(a) as being unpatentable over Wolf in view of Balasubramanian and Stokes. In explaining these rejections, the Office Action stipulates that Wolf does not disclose the models used or historical data.

Claim 4 recites replacing the measured color signal with a historical color signal based on a historical value related to the monitored input. It is respectfully submitted that Wolf, Balasubramanian and Stokes do not disclose or suggest replacing a measured color signal. Furthermore, it is respectfully submitted that Wolf, Balasubramanian and Stokes do not disclose or suggest replacing a measured color signal with a historical color signal. Furthermore, Wolf, Balasubramanian and Stokes do not disclose or suggest replacing the measured color signal with a historical color signal based on a historical value related to a monitored input.

For at least the foregoing additional reasons, **claim 4** is not anticipated and is

not obvious in light of Wolf, Balasubramanian and Stokes taken alone or in any combination.

Furthermore, the Office Action does not suggest a motivation for combining the models of Balasubramanian or Stokes with the subject matter of Wolf. Indeed, it is respectfully submitted that Wolf does not disclose or suggest the use of models to predict an expected color signal, comparing the expected color signal to a measured color signal or replacing a measured color signal with historical color signals or any other kind of signal. Furthermore, it is respectfully submitted that any motivation to combine Balasubramanian and Stokes with the subject matter of Wolf can only have been found in the present application. Therefore, the rejection of **claims 4 and 5** is based on impermissible hindsight. For at least the foregoing additional reasons, **claims 4 and 5** are not anticipated and are not obvious in light of Wolf, Balasubramanian and Stokes taken alone or in any combination.

Telephone Interview

In the interests of advancing this application to issue the Applicant(s) respectfully request that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.